Prior to geometry processing, raw data are typically obtained from system memory and translated into primitives, and then provided to a graphics processor. This type of data translation is known in the art as pre-geometry processing.

During geometry processing, translated primitives are transformed or otherwise set up for rasterization (e.g., assigning setup variables to the primitives) by the graphics processor.

Finally, during rasterization, transformed primitives from the graphics processor are rasterized.

The rasterized primitives may then be displayed as graphics on an image display.

B. Claim 1

It is axiomatic that the combination of cited references in a §103 rejection must disclose every element in the rejected claim. MPEP 2143.03. Claim 1 recites a method of graphics compression comprising the steps of:

"identifying the type of a set of setup variables;

modifying the set of setup variables by eliminating the type fields from the set of setup variables; and

bundling the modified setup variables into a packet of a corresponding predefined packet type."

As demonstrated below, Applicant respectfully submits that neither DULUK nor DEERING, or a combination of these references, discloses or suggests multiple steps as recited in claim 1.

1. DEERING and DULUK Disclose Graphics Processing in Different Parts Relative to the Graphics Pipeline Than Claim 1

Claim 1 recites a method of graphics compression in a graphics pipeline at least partially in or between geometry processing and rasterization. DEERING and DULUK also address graphics processing; however, both of these references disclose graphics processing at different parts relative to the graphics pipeline than claim 1. Specifically, DEERING is directed at the part prior to the simplified graphics pipeline described above or known in the art as pre-geometry processing. DULUK is directed

at the last part of the simplified graphics pipeline described above or known in the art as rasterization (or immediately prior to rasterization). In contrast, claim 1 recites a graphics compression method that is directed at the middle part of the simplified graphics pipeline described above and is at least partially in or between geometry processing and rasterization.

a. DEERING Discloses Graphics Compression Performed Prior to the Graphics Pipeline

DEERING discloses a command preprocessor that translates differing geometry input data formats into a common format for better processing by the geometry processor:

> The present invention is a command preprocessor in a graphics accelerator that translates the differing geometry input data formats into a common format, thereby enabling a higher performance and relatively low cost graphics accelerator. DEERING, Col. 1, lines 53-57.

Specifically, DEERING discloses a command preprocessor that more efficiently translates input data into primitives having a common format and provides the primitives to a graphics processor. DEERING, col. 1, line 60 - col. 2, line 50. Thus, DEERING discloses graphics processing that typically occurs prior to the graphics pipeline.

b. Claim 1 Recites Graphics Compression in the Middle Part of the Graphics Pipeline

In graphics processing generally, after primitives have been provided onto a graphics processor, the graphics processor may perform a setup process in which setup variables, which describe the primitives, are assigned to the primitives. These setup variables may or may not have type fields associated with them. Type fields describe various attributes of the setup variables (e.g., color, texture, etc.). The setup

process typically occurs in the middle part of the graphics pipeline between geometry processing and rasterization.

Turning now to claim 1, that claim recites a method of graphics compression that identifies a type for a set of setup variables, eliminates the type fields associated with the set of setup variables, and bundles modified setup variables into a packet corresponding to the identified type. Thus, the graphics compression method of claim 1 occurs in the middle part of the graphics pipeline, and is of the type known in the art as set up for rasterization.

c. DULUK Discloses Graphics Compression in the Last Part of the Graphics Pipeline

The cull unit disclosed in DULUK is a unit that provides additional graphics processing just prior to rasterization. DULUK, col. 8, line 56 - col. 9, line 5. The cull unit "discard[s] primitives that are hidden completely by previously processed geometry ... and determines the visible fragments of those remaining primitives ...." DULUK, col. 8, line 62 - col. 9, line 5. DULUK does not disclose or suggest any method to modify the setup variables. As explained above in Section I.B.1.b, setup variables may be used to describe primitives. Modifying a primitive itself may change the values associated with the setup variables for that primitive, but does not change the inherent data format of the setup variables. Thus, modifying primitives is not the same as modifying setup variables.

Further, DULUK discloses a method to eliminate portions of primitives that are hidden from view just prior to rasterization, which occurs in the last part of the graphics pipeline.

2. Conclusion

Although DEERING, DULUK, and claim 1 are all directed to graphics processing methods, each is directed to a different part relative to the graphics pipeline. Thus, DEERING and DULUK, singly or in combination, do not render claim 1 obvious. Indeed, DEERING and DULUK are not properly combinable, at least in a temporal sense, because their processes occur at different stages relative to a graphics pipeline – and these stages are both different than the stage of claim 1.

Further, as presented in more detail in the previous response to office action in the above-referenced parent case (see attached), neither DEERING nor DULUK (or a combination of them) discloses or suggests multiple steps recited in claim 1.

Therefore, based on all of the foregoing, claim 1 should be in condition of allowance and the rejection of claim 1 should be withdrawn.

C. Claim 2

Claim 2 is dependent upon claim 1 and therefore should also be in a condition for allowance.

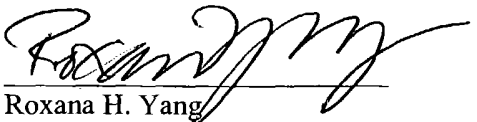
D. Claims 3-4

Independent claim 3 recites an apparatus comprising means for performing the steps as recited in claim 1. Based on Applicant's foregoing arguments with respect to claim 1, Applicant believes that claim 3 is patentable over DULUK and DEERING and should be in condition for allowance. Claim 4 is dependent on claim 3 and should also be in condition for allowance.

II. Conclusion

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Should the Examiner believe that a telephone interview would help advance the prosecution of this case, the Examiner is requested to contact the undersigned attorney.

Respectfully submitted,

By: 

Roxana H. Yang
Registration No. 46,788

Law Office of Roxana H. Yang
P.O. Box 3986
Los Altos, CA 94024
(408)749-8098